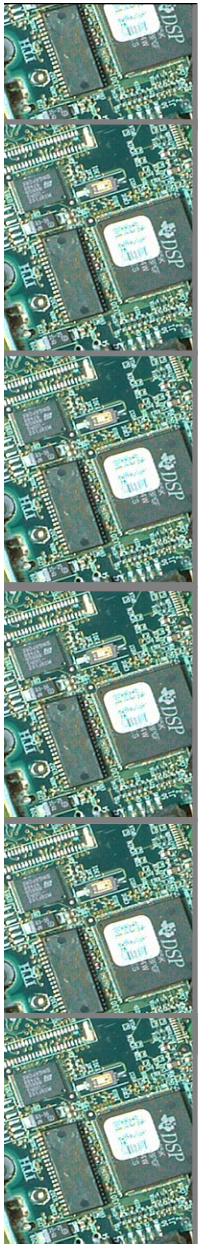
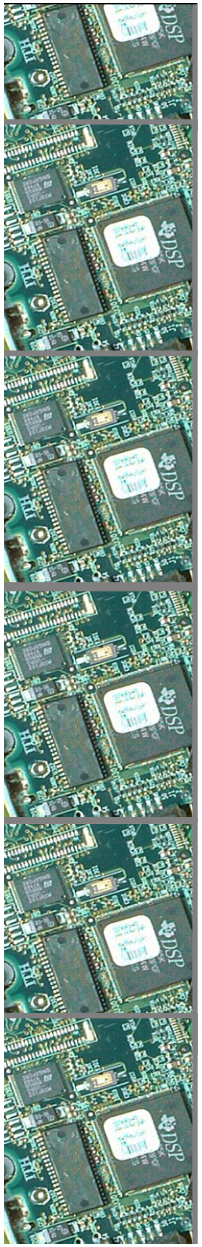


From Stakeholder Process to ANSI Standard

The Development of EPEAT for Electronics Purchasing

Wayne Rifer
Green Electronics Council
EPEAT Operations Manager



EPEAT©

The Electronic Product Environmental Assessment Tool

www.epeat.net

The Intent of EPEAT?

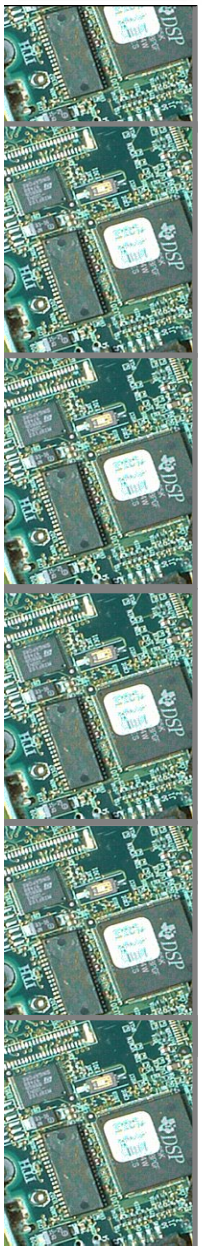
An environmental procurement tool designed to help institutional purchasers in the public and private sectors evaluate, compare and select electronic products based on their environmental attributes.

Initiation of EPEAT

- Initiated by the Western Electronic Product Stewardship Initiative (WEPSI)
  - A multi-stakeholder dialogue in 2001-2002
- Justified by NEPSI's frustrated intent to incentivize green design
- 2½ year multi-stakeholder consensus process by Development and Implementation Teams
- U.S. EPA grants to Zero Waste Alliance
  - Non-advocacy, non-profit dedicated to sustainability
  - Larry Chalfan (Director) & Wayne Rifer (Associate) facilitated and supported EPEAT process

EPEAT Development

- **National Workshop, June 17th, 2003**
  - Intel Ocotillo Campus, Chandler AZ
  - Organized by Steering Committee: EPA & ZWA
  - Focus on institutional purchasing as motive for improved environmental design
  - Drafted Mission Statement
  - Focus on product and attribute scope, tool design, parent organization
  - Handed off leadership to Development Team



EPEAT Mission

Develop an environmental performance assessment tool for electronic products and develop strategies to disseminate this tool in consumer, business, and government markets.

The EPEAT tool should:

- Promote continuous improvement in the environmental performance of electronic products without stifling, and while encouraging, innovation;
- Address the lifecycle environmental impacts of electronic products including, but not limited to, design, procurement, use, and end-of-life implications;

EPEAT Mission (cont.)

- Inform purchasing decisions by institutional purchasers regarding the environmental attributes of electronic products;
- Provide market advantage for companies that provide **products and services** that achieve improved environmental performance;
- Be low cost, user friendly, and cause **minimal** delay in time to market;
- Produce credible, verifiable outcomes that are accepted by relevant stakeholders; and
- Provide sufficient value in the marketplace to sustain itself.

Other Key EPEAT Principles

- Don’t reinvent the wheel – Build on existing standards when possible
- Trust but verify – Self-declaration with after-market verification
- A leadership standard, while assuring an adequate supply of product

EPEAT "Code of Conduct"

- Negotiate in a civil and respectful manner
- Listen carefully to each other
- Keep focused, on point and concise
- Be hard on the problems, soft on each other
- Focus on issues and interests, not positions
- Identify problems, root causes, your solutions
- Propose solutions considering others' interests
- Be mindful of how important it is to your peers that you reach a durable resolution

Consensus Approach

- Consensus decision making
  - Consensus votes rarely used
- Stakeholder balance
  - No domination by single interest group
  - Consideration of all views and perspectives
- A unanimous vote accepted criteria and program proposal

Development Team

- Met 5 times: Nov. 2003 – Nov. 2004
  - Innumerable conference calls
- 30+ active members
- Key Accomplishments
  - Decided on initial product scope
  - Developed system design
  - Drafted environmental attributes

EPEAT Stakeholders

- Manufacturers – Dell, HP, IBM, Apple, Panasonic, Sharp, EIA
- Purchasers – EPA, DOI, OFEE, GATX, Pitney Bowes, State of MA, State of OR, State of CA, City of Seattle, Federal Electronics Challenge
- NGOs – SVTC, Center for a New American Dream, Inform, H2E, NERC
- Governments – Federal, State and Local
- Recyclers - United Recycling, Waste Management, IAER
- Academia – Tufts, NJIT

Why Did Manufacturers Participate?

- Pressure for environmental design
  - NEPSI; states; EU Directives (RoHS, EuP)
- Interest in harmonization
- Prefer marketplace drivers to mandates
- From the start, EPEAT represented huge purchasing power
- EPEAT offered a voluntary, stakeholder consensus process

Why Did Purchasers Participate?

- Growing environmental concerns
- Need for an environmental standard that:
  - Is easy-to-use – a one-stop shop
  - Is credible
  - Will differential products
  - Is supported by manufacturers who will register an adequate supply of products

Why Was Consensus Achieved?

- Stakeholders were committed to a common solution
- Stakeholders held full authority
  - Success or failure in stakeholders' hands
  - EPA funded, but not in charge
- Stakeholders negotiated from interests, not positions
  - Conflicting positions create impasses
  - Creative solutions resolve differing interests

Implementation Team

- March 2005 – January 2006
- 19 active members
- Key issues decided on:
  - Selection of host organization through competitive procurement – GEC
  - Design of web application – EPEAT Registry
  - Selection of IEEE for standard development
  - Development of communication materials and draft budget

Two Components of EPEAT

1) IEEE 1680-2006 - ANSI Standard for the Environmental Assessment of Personal Computer Products
   - Widely accepted, credible process
   - Assures openness, balance, consensus
   - Internationally available

- Environmental criteria
- Rules of the game

IEEE 1680 available from IEEE site for $70

Second Component of EPEAT

2) Host Organization

- Green Electronics Council (GEC)
  - International Sustainable Development Foundation
- EPEAT, Inc. - 501(c)4
- www.epeat.net

- Signs up manufacturers
- Operates web-based declaration system
- Verifies product registrations
- Promotes use of EPEAT in purchasing

Implementation Timeline

- GEC receives seed grant from EPA January 2006
- IEEE 1680 balloted and finalized April 2006
- EPEAT Registry launched July 2006

EPEAT© Environmental Performance Categories

- Environmentally Sensitive Materials
- Materials Selection
- Design for End of Life
- Product Longevity/Life Cycle Extension
- Energy Conservation
- End of Life Management
- Corporate Performance
- Packaging

EPEAT Tiers

EPEAT™ Bronze – Meets the 23 mandatory criteria

EPEAT™ Silver – Meets all mandatory criteria and 50% of the optional criteria

EPEAT™ Gold – Meets all mandatory criteria and 75% of the optional criteria

The EPEAT Registry

EPEAT Registered Products Search Tool				
Product	BRONZE	SILVER	GOLD	Total
Desktops	4	54	25	83
Integrated Systems	0	5	0	5
Monitors	9	253	1	263
Notebooks	17	104	13	134
Totals	**30**	**416**	**39**	**485**

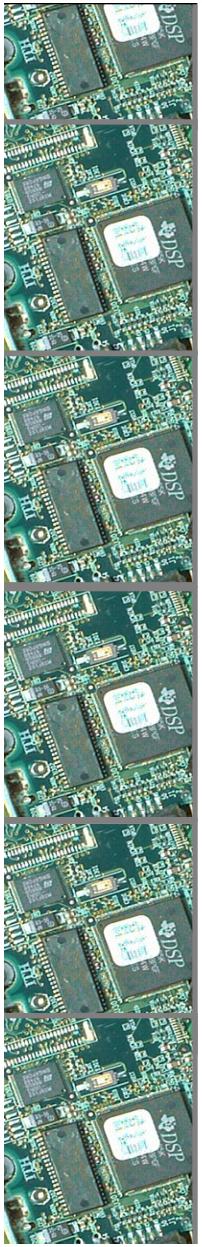
<www.epeat.net>

EPEAT Verification Process

- Like ENERGY STAR® Companies:
  - ✓Sign MOU to participate
  - ✓Products verified after registered

- Products routinely tested:
  - Test a single attribute or set of attributes across all products
  - Test all attributes within a single product or a subset of all products

•Verification conducted in Rounds – now conducting Second Round

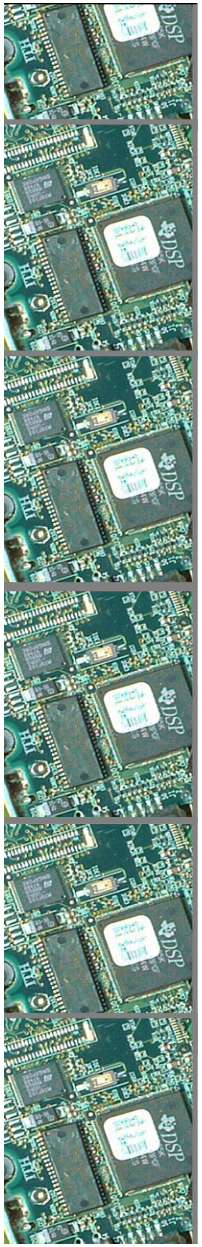


26 Participating Manufacturers

- Apple
- CIARA-TECH
- CTL
- Dell
- Enano Computers
- Fujitsu
- GETAC
- HP
- Hyundai IT America
- Lenovo
- LG Electronics
- MDG Computers CN
- MPC Computers
- NCS Technologies
- NEC Display
- Northern Micro
- One Laptop per Child
- Panasonic
- Philips Electronics
- Prosys Tech Corp
- Samsung
- Sony Electronics
- Toshiba
- Transource
- Viewsonic
- Zonbu - PConRails

Federal Executive Order 1/27/07

The head of each agency shall ensure that the agency when acquiring an electronic product to meet its requirements, meets at least 95 percent of those requirements with an Electronic Product Environmental Assessment Tool (EPEAT)-registered electronic product, unless there is no EPEAT standard for such product.



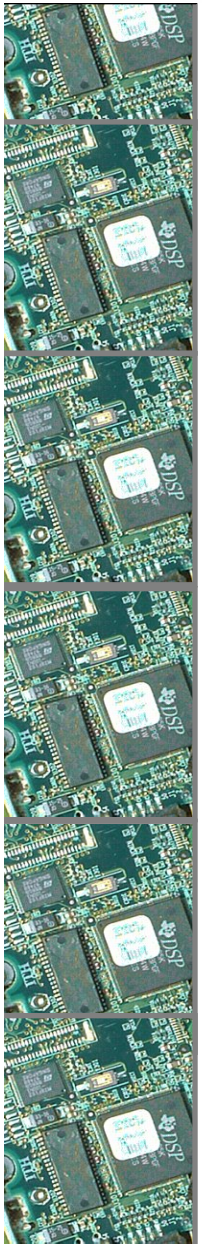
Federal Acquisition Regulations FAR

- References EO language
- Buying EPEAT© registered products directly impacts Agency OMB Environmental Scorecard Ratings
- Energy Policy Act requires feds to buy Energy Star qualified and FEMP compliant electronics

Purchasers Using EPEAT

- US Federal Government: approx $45 billion in contracts
- Canada: Federal Government Master Agreement, Province of Nova Scotia
- UK: Office of Communications
- New Zealand: Environmental and Defense ministries
- Private Sector: Kaiser Permanente, Premier Inc. (healthcare GPO), McKesson, HDR
- Cities including Phoenix, AZ, San Jose , CA, Seattle, WA
- US States: Oregon, Washington, New York, California, Massachusetts

EPEAT Environmental Benefits



First 6 months vs conventional products:

- 13.7 b. kWh saved = 1.2 million homes/ 1yr
- 24.4 million metric tons materials reduced
- 56.5 million tons air pollution, including 1.07 million tons of GHG = 852,000 cars/yr
- Prevents 118,000 metric tons water pollution
- Reduces toxic materials by 1,070 metric tons
- Avoids disposal of 41,000 metric tons of hazardous materials

Keys to EPEAT Success

- Manufacturers and purchasers shared the common goal – one system to avoid marketplace confusion
- A collaborative effort based on consensus and respect for others
- Dedication to developing a workable and realistic system